

Claims

1. A device for purification of machine parts contaminated by oil and grease, comprising:

a purification housing which can be locked with a lid, in which a basket for receiving the contaminated parts is arranged, and in which a spray nozzle system fed by purifying fluid provided in the housing acts upon the parts to be purified which are provided in the basket and a bioreactor for treating the purifying fluid, where the purifying fluid is provided in a closed circuit via a discharge line and a supply line between the purification housing and the bioreactor,

wherein a heat exchanger for cooling the purifying fluid to the temperature level of the reactor is located in the discharge line and a valve is located between the heat exchanger and the bioreactor, which valve is opened for the purifying fluid only at the temperature level of the bioreactor.

2. A device as claimed in Claim 1, wherein a pump which circulates the purifying fluid is provided between the heat exchanger and the valve.

3. A device as claimed in Claim 1, wherein the bioreactor has a temperature range of 35°C to 40°C in order to favour the bacteria culture.

4. A device as claimed in Claim 1, wherein the purifying fluid in the device has a temperature range of 50°C to 80°C.

5. A device as claimed in one Claim 1, wherein the bioreactor has an air throughput to favour the bacteria.

6. A device as claimed in Claim 5, wherein in the upper area of the bioreactor a chamber or an overflow is located in order to receive the treated purifying fluid.

7. A device as claimed in Claim 6, wherein the overflow is connected to the supply line which is connected to the spray nozzle system.

8. A device as claimed in Claim 1, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

9. A device as claimed in one Claim 2, wherein the bioreactor has an air throughput to favour the bacteria.

10. A device as claimed in one Claim 3, wherein the bioreactor has an air throughput to favour the bacteria.

11. A device as claimed in one Claim 4, wherein the bioreactor has an air throughput to favour the bacteria.

12. A device as claimed in Claim 2, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

13. A device as claimed in Claim 3, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

14. A device as claimed in Claim 4, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

15. A device as claimed in Claim 5, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

16. A device as claimed in Claim 6, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.

17. A device as claimed in Claim 7, wherein a control arrangement controls the heat exchanger, the pump, the valve as well as the pump for supplying the air to the bioreactor.